

# Draft Russian River Watershed Resilience Pilot— Watershed Study Area

Russian River Watershed Resilience Plan  
Draft July 21, 2025

## 1. Introduction

This technical memorandum describes the development of proposed study area boundary that will be used for the Russian River Watershed Resilience Pilot (RRWRP). This proposed boundary builds upon the Russian River watershed boundary identified in the California Department of Water Resources' (DWR's) *California Watershed Resilience Assessment* (DWR 2024). The boundary developed for the RRWRP maintains the watershed-level focus of the *California Water Plan Update 2023* (DWR 2023).

This technical memorandum describes the differences between the proposed study area boundary and the Russian River watershed boundary delineated by DWR (DWR 2024).

## 2. Description of Previous Study Area Boundaries

*California Water Plan Update 2023* recommended a watershed-scale approach to developing solutions to California's water management challenges (DWR 2023). In response, DWR proposed a series of watershed resilience assessments. A total of 48 watersheds were delineated across the state, following US Geological Survey Hydrologic Unit Code (HUC)-8 boundaries. While some of the 48 watersheds were delineated by combining several HUC-8 watersheds, the Russian River watershed is consistent with the HUC-8 boundary. **Error! Reference source not found.** shows the Russian River watershed from this effort. Water from Russian River watershed also provides water supplies to agencies in the North Bay watershed.

Figure 1. Russian River Watershed



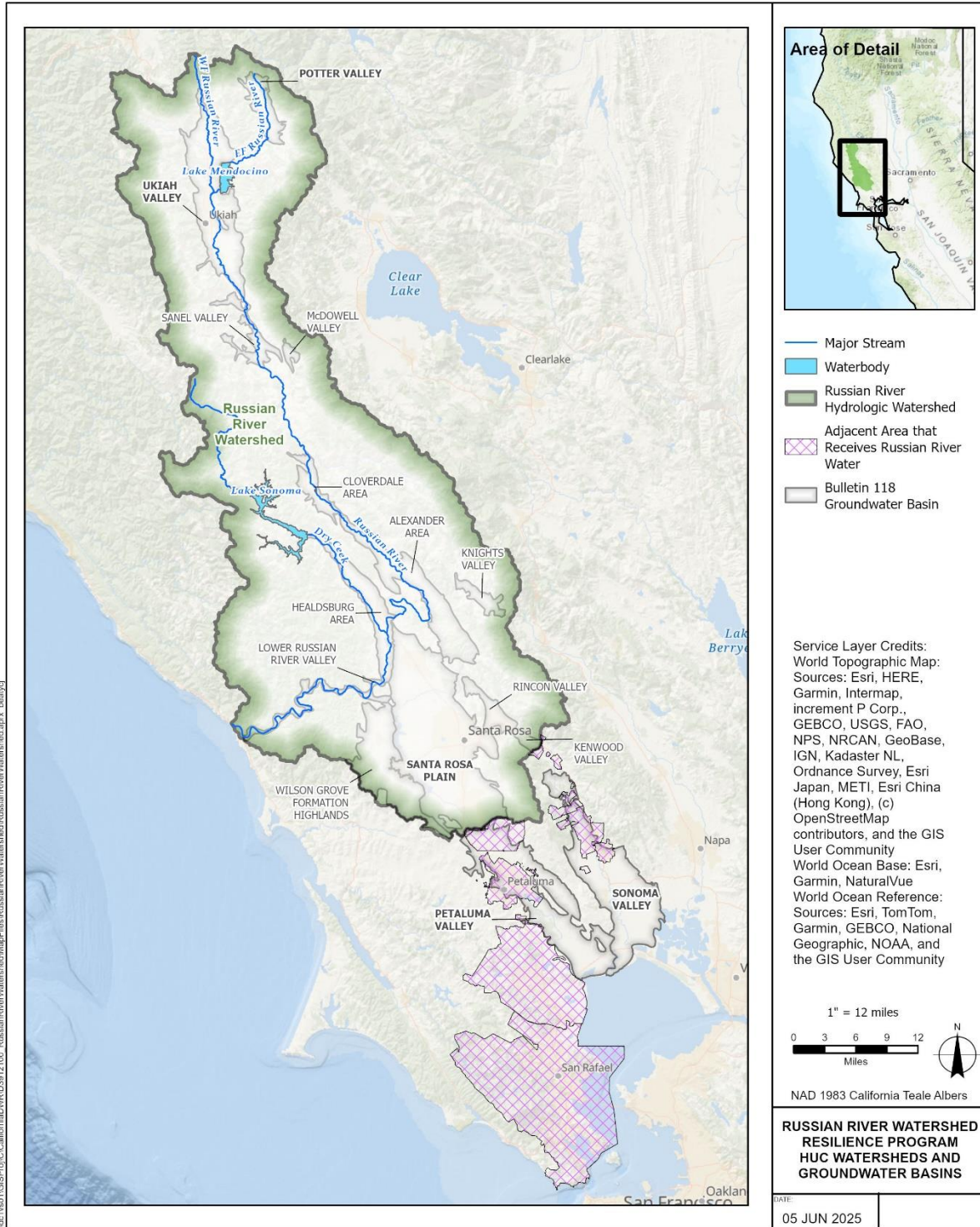
Source: DWR 2024

### 3. Proposed Study Area Boundary

For the RRWRP, the proposed boundary adopts the HUC-8 Russian River watershed delineation from the *California Watershed Resilience Assessment* (DWR 2024) and adds adjacent areas that receive Russian River water supply. The proposed boundary encompasses the entire Russian River watershed, including its groundwater basins, and includes important hydrological features such as Lake Mendocino and Lake Sonoma; Potter Valley, Ukiah Valley, Santa Rosa Plain, and Alexander Valley groundwater basins; and the Laguna de Santa Rosa and Russian River Estuary. The adjacent areas that receive Russian River water, also termed “plus” areas, encompass portions of the North Bay watershed (i.e., Sonoma Water service areas) including Sonoma Valley and Petaluma Valley groundwater basins, and Sonoma Water service areas in Petaluma, Valley of the Moon, Sonoma, Novato, and Marin Water’s service area. This “plus” area expansion ensures that the hydrologic and hydrogeologic conditions of the Russian River watershed that affect water supply to all relevant communities, infrastructure, and populations are being considered for this effort.

The proposed study area boundary includes two major reservoirs that affect flows in the Russian River watershed, Lake Mendocino and Lake Sonoma. Lake Mendocino, located in the upper Russian River watershed near Ukiah, releases stored water into the Russian River to meet minimum instream flow requirements and downstream water demands for the Upper Russian River, a 63-mile stretch of the Russian River from Coyote Dam to the confluence of Dry Creek. Sonoma Water makes releases from Lake Sonoma, located in the lower watershed, into Dry Creek to meet minimum instream flow requirements and downstream demands for a 14-mile stretch of Dry Creek to the confluence of the Russian River, as well for the 31-mile stretch of the Russian River from the confluence of Dry Creek to the Pacific Ocean near Jenner. Sonoma Water also diverts water from the Russian River at its Wohler and Mirabel diversion facilities located near the town of Forestville. The Russian River also receives trans-basin imports from the Eel River through the Potter Valley Project (PVP), a hydroelectric facility owned and operated by PG&E. Imports from the PVP are released into the upper reach of the East Fork Russian River approximately 12 miles upstream of Lake Mendocino. Finally, the proposed watershed area includes reservoirs managed by Marin Water and North Marin Water District. North Marin Water District and Marin Water supplement their water supply with water that comes from the Russian River system.

The comprehensive climate vulnerability and risk assessment for the RRWRP will be primarily conducted within the Russian River watershed. A limited evaluation of water supply (surface water and groundwater) will only be conducted in the areas outside the Russian River watershed that are included in the proposed study area boundary.

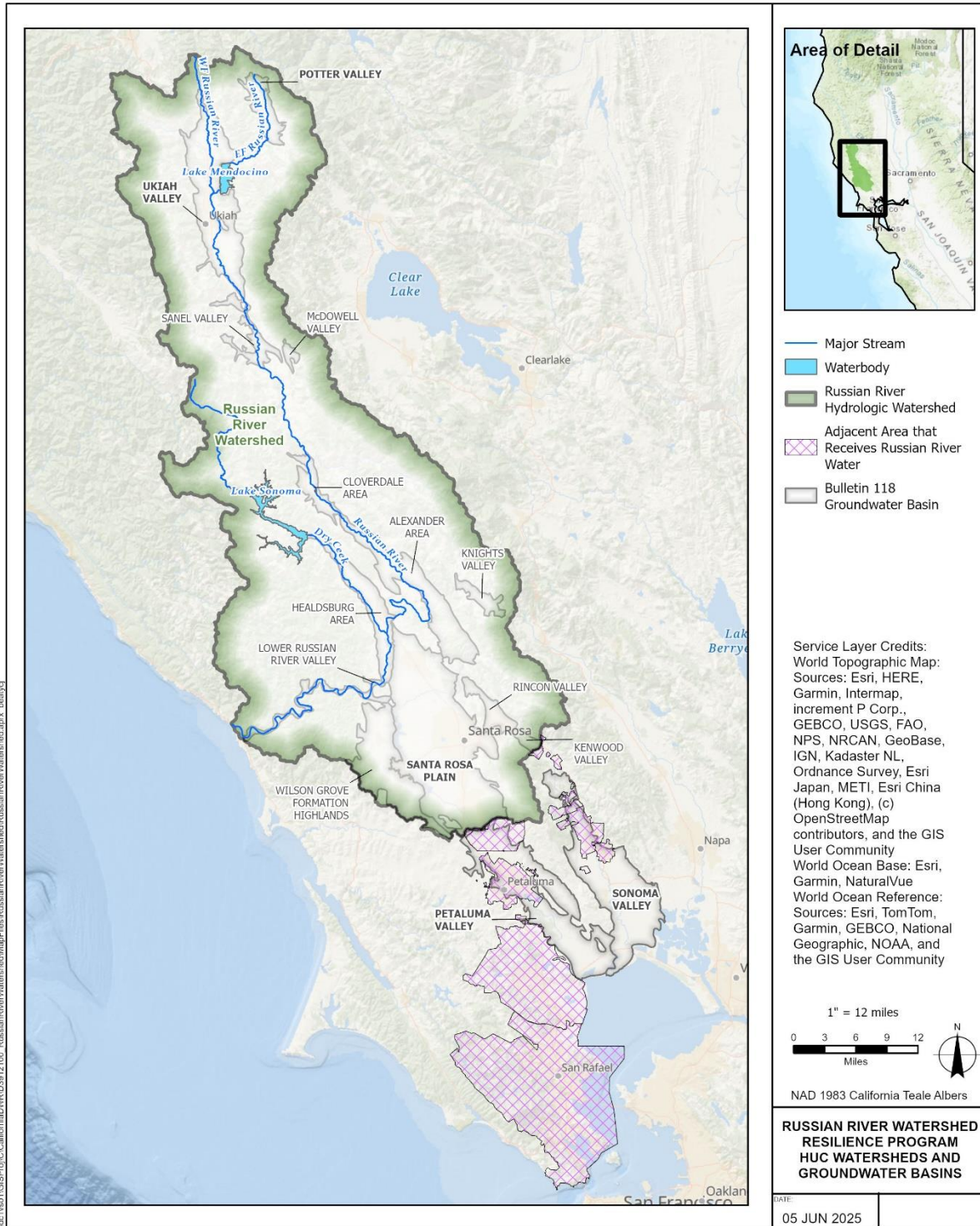


shows the proposed watershed study area. The proposed study area includes the following HUC-8s:

- 18010110: Russian River
- 18050002: San Pablo Bay (only for the portion overlapping with Sonoma Water service areas)
- 18050005: Tomales-Drake Bays (only for the portion overlapping with Sonoma Water service areas)



Figure 2. Proposed Russian River Watershed Resilience Pilot Study Area



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## 4. References

California Department of Water Resources (DWR). 2024. *California Watershed Resilience Assessment*. Prepared as part of the Watershed Resilience Program. July. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2023/Supporting-Documents/California-Watershed-Resilience-Assessment.pdf>.

California Department of Water Resources (DWR). 2023. *California Water Plan 2023 Update*. December. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2023/Final/California-Water-Plan-Update-2023.pdf>

Sonoma Water. 2021. *Sonoma Water Climate Adaptation Plan*. October. [https://www.sonomawater.org/media/PDF/Environment/Climate%20Adaptation%20Planning/SW\\_CAP\\_Final\\_October\\_2021.pdf](https://www.sonomawater.org/media/PDF/Environment/Climate%20Adaptation%20Planning/SW_CAP_Final_October_2021.pdf)